

Draft Agenda for GEO-CAPE 2015 Open Community Workshop

Aug 31 - Sept 2, EPA facility at Research Triangle Park, North Carolina

Large room to be set in two parts with projector and laptop in each (smaller portion to accommodate 50; larger to accommodate plenary); one breakout room (20-30 people) across the hall; 50 posters at 3ft wide x 4 ft tall (25 boards, each 6 ft wide) in the main hallway

Laura – remember to keep track of coffee break timings, maybe stagger lunch too?

DAY 1: Monday August 31

7:45(ugh) Registration

Morning: PLENARY

8:15 Welcome (EPA)

8:20 NASA HQ perspective , including update on Decadal Survey process (who?)

8:30 Workshop objectives (Jay Al-Saadi?)

8:40 Atmospheric Composition Science Working Group highlights (Jacob/Edwards)

9:10 Ocean Color Science Working Group highlights (Mannino?, Tzortziou?)

9:40 Mission Implementation highlights (GEO hosted payloads, white paper) (Neil? Bienstock?)

10:00 BREAK: suggest starting NLT 10:15 am

10:30 Updates on international GEO instruments/missions, GEO constellation

- 10 min_GOCI-II development status (W. Kim?)
- 5 min_GEMS status (few slides by Al-Saadi)
- 5 min_Sentinel-4 status (few slides by Al-Saadi)
- Other?

11:00 Status report on upcoming AQ and OC field campaigns in Korea

- US Air Quality campaign (KORUS-AQ) (Lefer?)
- US Ocean Color campaign (Salisbury?)
- GOCI-I Cal/Val activities & GOCI applications (W. Kim?)

11:40 TEMPO update (Chance?)

12:00 LUNCH (Lakeside Café is very near the meeting rooms, as I understand it)

Afternoon: Parallel Sessions

ATMOSPHERE:

1:00 Invited “user and early adopter” session (Lead: Terry Keating)

- Possible topics:
- EPA air priorities for the next decade
- Engaging stakeholders and early adopters for TEMPO
- NOAA GOES-R Proving Ground (Pierce, remotely? Kondragunta?)
- AQAST accomplishments and looking ahead to the future

3:00 BREAK

3:15 Discussion Session: GEO-CAPE beyond TEMPO: GCIRI and Decadal Survey (Lead: Al-Saadi and/or others)

4:15? Poster session - or move to Tuesday?

DAY 2: Tuesday September 1

Morning: Parallel Sessions

ATMOSPHERE: Contributed science talks on geostationary observations

- 8:30 Nowlan: Trace gas retrievals from the GeoTASO aircraft instrument
- 8:45 Pickering/Follette-Cook: Spatial and Temporal Variability of Trace Gases during DISCOVER-AQ: Planning for Geostationary Observations of Atmospheric Composition
- 9:00 Sheng: High spatially resolving methane emission in southeast US; constraints from the SEAC4RS aircraft campaign and future geostationary observations
- 9:15 Scheffe: Modeling hazardous air pollutants across regional and local spatial scales
- 9:30 Natraj: (Tentative) O3 and NO2 OSSEs on a Regional Urban Scale for GEO-CAPE

9:45 BREAK

- 10:15 Pickering/Lamsal: Retrieval Complexities for Development of an NO2 Algorithm for Geostationary Satellite Observations
 - 10:30 Kim, S-W: Assessing Anthropogenic Emissions of Volatile Organic Compounds using Satellite Retrievals of Formaldehyde
 - 10:45 Bowman: Role of constellation LEO and GEO sounders to distinguish global versus local sources of pollution
 - 11:00 Neu: The GEO-CAPE Atmospheric Applications Value Matrix
 - 11:15 Castellanos: Updates on the TEMPO/GOES-R Instrument Simulator and GEOS-5 Nature Run with Full Chemistry
 - 11:30 Cohen: An Ensemble-Based Data Assimilation System for Reactive Trace Gases: Application NO2 from OMI and TEMPO
- 11:45 LUNCH

Afternoon: Parallel Sessions

ATMOSPHERE:

- 1:00 Edwards: Atmospheric composition geostationary science: Evaluating performance with Observation System Simulation Experiments
- 1:15 Newchurch: TOLNet adjunct to TEMPO observations
- 1:30 Working Group breakout Session #1 (Aerosols, Constellation OSSE, Emissions & Processes,).
- 3:30 Working Group breakout Session #2 (Regional and Urban OSSE, Methane, GeoTASO/GCAS)

DAY 3: Wednesday September 2

Morning First Session: Parallel Sessions

ATMOSPHERE:

8:30-9:30 WG reports and recommendations for FY16 activities

8:30 Aerosols (Chin? Wang?)

8:40 Regional and Urban OSSE (Bowman?)

8:50 Constellation OSSE (Edwards? da Silva?)

9:00 Emissions & Processes (Henze? Frost?)

9:10 Methane (Jacob?)

9:20 GeoTASO/GCAS (Al-Saadi?)

9:30 – 10:15 Open discussion on priorities for future geostationary observations to serve as input for Decadal Survey (Lead: D Jacob; Rapporteur?)

10:15 BREAK suggest starting NLT 10:15 am

10:30 Morning Second Session: PLENARY

- Plans for FY16 and beyond: what more needs to be done to ensure that GEO-CAPE can fully capitalize on TEMPO? (Al-Saadi? Bontempi? Lefer?)
- Summary of recommendations for input to Decadal Survey, next steps (Jacob? Mannino?)
- Any other business

Noon: Adjourn GEO-CAPE Community Workshop

Afternoon: Commence GEO-CAPE Ocean Color Field Campaigns Data Workshop, to run through Thursday Sep. 3

Lakeside Cafe

Hot Breakfast 6:30 a.m. – 10:00 a.m.

Continental 10:00 a.m. – **10:30 a.m.**

Lunch **11:00 a.m.** – 2:30 p.m.

Grab N' Go Snacks/Beverages 11:30 a.m. – 5:30 p.m.

ALL POSTERS (will alphabetize later)

- Poulin Diel variations of the optical properties of oceanic phytoplankton
- Gatebe Assessment of the need for corrections of remote sensing reflectances due to BRDF effects in coastal waters
- Mouw High temporal resolution observations of harmful algal bloom formation and senescence in Western Lake Erie
- Mannino Optimization of Ocean Color Instrument Requirements for NASA's GEO-CAPE Mission Concept Based on Sensor Capability and Cost Studies
- Zhai Implementing inelastic raman scattering in polarized radiative transfer for coupled atmosphere and ocean systems
- Signorini Assessment of satellite spatial resolution requirements to capture the spatial dynamics of phytoplankton and CDOM across estuaries and the adjacent coastal ocean
- Kim, W Correction of Inter-slot discontinuity Using the MNF transform (CIDUM) for GOCI data
- Lohrenz Evaluation of Hyperspectral Ocean Color Algorithm Performance in Optically Complex Coastal Waters
- Moses A Remote Sensing Perspective on Spatial Scales of Variation in Biogeophysical Properties of Water
- Mulholland Primary productivity in the Western Gulf of Mexico and Northern Chesapeake Bay
- Chatfield Full Maps of Daily PM_{2.5} for Problem Regions; A "Mediterranean Respite" using Water Vapor Column"
- Worden Variability in averaging kernels and dependence on physical state parameters for O₃ and CH₄
- Kurosu Airborne GeoTASO Retrievals at JPL: First Results
- Pickering / Loughner Urban OSSE Nature Run Captures Local-Scale Air Quality Features